Reading Literacy for Students with Low Vision

Chrissy Cowan, M.Ed., TVI
Texas School for the Blind and Visually Impaired Outreach Programs

Learning to be literate makes the chances for success much greater

Scary stuff……

Present Levels of Literacy Functioning for Students with Low Vision (Carver, 1989)

It's time we beef up our LMA

What I see

Clinicians, TVIs, and/or parents prescribe print size and viewing conditions without adequate data that will stick with the student for his/her entire time in school

The mechanics of reading with low vision

VI support to the reading literacy program requires VI decisions:

- Should print size be enlarged?
- Should viewing distance/position be changed?
- Should optical or electronic magnifications systems be used?
- Should lighting be modified?
- Should alternatives be used (braille, speech-output systems)

Visual factors affect reading rate, fluency, & stamina

- Acuity reserve (print size relative to acuity threshold)
- Contrast reserve (print contrast relative to contrast threshold)
- Visual/perceptual span (the range of letters that can be recognized reliably without moving the eyes)
- Lighting
- Size and location of a scotoma

Data we can collect on our LMA

- Reading speed
- Reading fluency

- Reading stamina

Reading Speed

When testing reading speed in relation to visual efficiency, think in terms of…….

- Critical Print Size vs. Comfort Zone
- CPS is the smallest print that can be read at the maximum speed
- Determined by measuring reading speed as the reader negotiates progressively smaller samples of printed material
- The critical print size will not always be comfortable to read for long

Reading speed depends upon

- Print size
- Visual skills
- Print layout
- Cognitive demands
- Processing demands

Know your print notations

Know what the numbers mean

3 mm print

To identify best print size for reading:

- Identify threshold (smallest line read)
- Identify current print size and reading duration required (target)
- Identify optimal environmental conditions
- Combine with:
    - Reading efficiency skills
    - FVE/LMA

Determining Speed & Grade Level: Conducting the Jerry Johns BRI

- Graded word lists
    - Used to determine instructional level
    - 6 incorrect = frustration
- Graded reading passages
    - Timed
    - Record words missed or self-corrected
    - Subtract missed words from wpm
    - Listen to “flow”

Score Brittney as she reads “Elizabeth Meets Darcy”

Reading speed is affected by Perceptual Span

- Perceptual span:

- The length of the group of letters or short words encompassed in a fixation—typically 7-10 letters

Magnification will affect perceptual span

- As the size of letters increases, the perceptual span decreases
- Goal:
    - comfortable working distance +
    - correct amount of magnification

Strike a happy balance

- If print is too large, reading speed will be slower
- If print size is too small, reading speed will be slower
- If print is closely spaced, reading speed will be slower

Large Print vs. Optical Devices

- Large Print
    - Reading speeds plateau
    - Costly
    - Lag time delivery to school
    - Cumbersome
    - Rejected by students
    - Poor graphics
    - Difficult to find outside of school and after high school
    - Not necessarily “large”
- Optical Devices
    - Reading speeds continue to increase
    - Increased access to a wide range of materials (what all kids are looking at)
    - Require clinical low vision evaluation
    - Require training with TVI/COMS
    - Locus of control is with the student
    - Increase access with the correct tools
    - There’s no large print on the job!

Reading Fluency

Based on student journals in a study by Jolliffe & Harl’s (2008), college freshmen students spent…..

- an average of 2 hour and 43 minutes per day on academic + non-academic reading:
    - 1 hour and 24 minutes per day on academic reading
    - average of 54 minutes a day to nonacademic reading involving technology—Facebook profiles, emails, instant messages, Internet sites
    - average of 25 minutes per day on nonacademic reading that did not involve technology—magazines, books, newspapers

What reading fluidly looks like in an adult with low vision

- 41 year old (Brandi) with 20/400 in one quadrant of one eye, ONH:
- One minute timing: 273 wpm

- Reading distance: 2”
- Device used: +8 microscopic reading glasses
- Sustained reading
- First 5 minutes: 186 wpm
- Second 5 minutes: 164 wpm

Some fluency materials

- Dibels (free)
- https://dibels.uoregon.edu/market/assessment/materialdownload?agree=true
- Read Naturally-Reading Fluency Progress Monitor
- Developmental Reading Assessment (DRA)

Listen to two students read

- Fill in your Jerry Johns record sheet for two 5th grade students and calculate wpm for each
    - Kayla: ONH/SOD 20/160 RE; 20/320 LE
    - Sarah: Stargardt Macular Dystrophy; 20/200

Next steps for these 2 students

- Kayla?
- Sarah?

Reading Stamina

Video of a process to determine stamina

Introducing the Task

- Tell the student you will be testing reading stamina by having him read silently for 20 minutes while you time him, then you will ask him to recap what he read.
- Tell him you cannot talk to him or help him with any words as he reads
- Tell him you will tap him on the shoulder after 10 minutes, and want him to quickly point to the word he is on, but to continue reading.
- Practice this briefly (on one sentence).
- Ask him to tell you when he is comfortable with beginning.
- Begin timing, tap on shoulder after 10 minutes, on your copy mark the word he pointed to, and mark the stopping point after the next 10 minutes (20 minutes total reading time).
- Note reading distance throughout.
- Ask student to recap, or, ask prepared comprehension question for key points.
- Record time for first 10 minutes, and time for 2nd 10 minutes. Compare.

Let’s do the math:

- 1st 10 minutes: read 2600 words
- 2600 words/10 minutes= 260 wpm
- 2nd 10 minutes: read 2000 words
- 2000 words/10 minutes = 200 wpm

- This student averages 230 wpm, but starts to slow down after the first 10 minutes
- Take a longish break (15 minute walk to relax eye muscles is best) and repeat with 18 point font, continuing to read where she left off on the 21 point font.

Interpretation: Eureka!!

- Look at your data to decide whether or not differences between reading behaviors are educationally significant
- Look at published charts of reading rates to compare your student to the students who do not have a visual impairment

Subsequent Session(s):

On separate days, collect additional information on stamina using reading samples with progressively smaller print and the magnifier the student has been taught to use efficiently. Your goal is 12 point print.

Making a Decision

- If 2 media are similar, consider the least restrictive option as the desirable medium
- If reading regular print is less efficient, consider need for low vision evaluation to explore magnification. Do not decide that the use of LP will be the most efficient medium indefinitely
- If reading regular print w/ an optical device is less efficient, consider the need for additional instruction and practice in the use of the device

Determining Factors

- If regular print is as efficient or more than large print and there are no concerns for stamina or reading efficiency, consider using regular print as primary reading medium.
- If there are any concerns about stamina or reading efficiency, intervention is indicated
- If large print is more efficient, regardless of whether there are any concerns from others, intervention is indicated
- Before switching media you should provide targeted instruction to increase print reading speed and stamina

Intervention

3 Activities for Increasing Reading Speed or Rate

- Speed drills-To conduct a speed drill, have the student read a list of words for 1 minute as you record the number of errors. You may use a high-frequency word list
- Use a marketed reading program with one-minute timings which employ three stimuli: phonics, sight phrases, and reading short stories.
- Repeated readings

One technique that works well with students with low vision

Repeated readings-The repeated readings technique is designed for children who read slowly despite adequate word recognition (Samuels, 1979). For this procedure, the child reads the same passage over and over again.

One Activity for Increasing Reading Stamina

- After you collect data on stamina:
  - Use your data to set a goal for increasing stamina
  - Select materials that match the student's experience and interests
  - Keep a record of progress

Keeping Track of Stamina

For struggling readers, consider audio assisted reading and literacy software

- Audio assisted reading
  - Method of using recorded books along with the corresponding book in regular print, large print, video-magnified print, or braille
  - See Ike Presley article, *Audio Assisted Reading,* for step-by-step instructions
- Literacy software, such as *Read & Write* (http://www.texthelp.com/North-America)

Literacy Skill Areas Identified as Important for Students with Low Vision

Adapted from: Corn, A.L., and Erin, J.N., Editors. *Foundations of Low Vision, Clinical and Functional Perspectives, Second Edition*. New York, NY: AFB Press, 2010.

The following areas will require direct input from teachers of students with visual impairments.

Emergent literacy skills

- Supporting literacy development in early childhood settings
- Developing book concepts
- Working with parents to expand experiential base and general concepts
- Helping families acquire and create books
- Draw attention to signs/environmental print

Integrated use of visual skills

- Teaching/reinforcing development of visual skills in functional contexts (visual searching, visually directed reach)
- Interpreting pictures and graphic displays
- Systematic searching and scanning for information on a page
- Teaching use of environment adaptations and use of non-optical low vision devices and strategies (light controlling devices, felt-tip pens, filters, positioning materials)
- Arranging the physical environment to maximize visual learning (see "Vision Ergonomics")

Use of optical devices in near environments

- Teaching use of prescribed optical low vision devices for reading in books, newspapers, magazines, etc.
- Building stamina in students for sustaining textual reading
- Teaching integrated use of near low vision optical devices in authentic environments for functional tasks (e.g., reading menus, bus schedules, food labels, price tags)
- Coordinate training with COMS (e.g., map reading)

Use of optical devices in distance environments

- Teaching use of prescribed optical low vision devices for reading distance tasks (e.g., office building directory, wall menus, signs in grocery store, chalkboards, overhead projectors, charts in classrooms, demonstrations in classroom/school)
- Coordinate training with COMS (e.g., house numbers, street signs)

Beginning print literacy skills

- Providing ongoing assessment of literacy skills and literacy media needs
- Building reading fluency and stamina
- Arranging the reading environment
- Building motivation for reading
- Encouraging leisure reading

Intermediate and advanced print literacy skills

- Building stamina and fluency in reading, with or without optical devices
- Teaching strategies for accessing print information in the environment
- Teaching functional applications of reading and writing (e.g., reading games cards, Legos® instructions, model assembly instructions, writing a letter)
- Providing ongoing assessment of literacy skills and literacy media needs
- Fostering responsibility for accessing visual information
- Teaching strategies for determining when to augment visual information (e.g., recorded texts, braille)
- Using print literacy skills to complete functional tasks in authentic environments
- Applying literacy skills in learning content subject matter (e.g., science, math, history)
- Teaching strategies for transitioning to work environments

Beginning literacy skills in in dual media (print and braille)

(For students for whom the educational team has decided that instruction in both print and braille is appropriate)

- Teaching formal reading skills concurrently in both print and braille
- Including decoding and word analysis skills, vocabulary development, comprehension skills, and reading for specific purposes
- Teaching writing and formal writing skills in both print and braille
- Providing ongoing assessment of literacy skills and literacy media needs
- Continuing to develop mechanical skills in braille reading
- Building reading fluency in both media
- Applying literacy skills in both media through the day and in authentic contexts
- Building motivation for/enjoyment of reading

Braille literacy skills for students with print literacy skills

(For students for whom the educational team has decided that instruction in braille is appropriate as a supplement to or substitute for print)

- Teaching tactile perception, hand movements, letter/symbol recognition skills in braille
- Introducing braille contractions and rules
- Teaching braille writing skills
- Integrating use of braille in practical activities
- Providing instruction in contracted and uncontracted braille to address the present and future needs of the individual student
- Providing ongoing assessment
- Applying literacy skills throughout the day

Listening, aural reading, and live reader skills

- Fostering development of auditory skills
- Teaching and reinforcing the use of listening to gather information (e.g., extracting critical information from class instruction/lectures)
- Teaching the mechanics of using recorded textbooks
- Teaching strategies for gathering information from recorded textbooks
- Teaching strategies for using live readers

Keyboarding and word-processing skills

- Teaching touch-typing techniques, if not part of general education curriculum
- Teaching strategies for using word processing, including creating, editing, saving, and printing text files
- Teaching shortcut keys on a computer keyboard
- Helping students choose a comfortable font, color contrast, and size for efficient word processing
- Building fluency and accuracy in keyboarding skills

Technology skills

- Teaching technology skills to facilitate literacy tasks and access print information, such as the use of video magnifiers, computers with accessible print, synthesized speech, voice recognition systems, enlarging software, scanners (to convert print to an accessible medium)
- Gaining access to the internet
- Setting up new equipment
- Teaching care and maintenance of equipment

A Procedure for Determining Student Performance and Stamina with Different Size Print

Adapted from the Print Media Assessment Profile in: Koenig, A.J. and Holbrook, M.C., *Learning Media Assessment of Students with Visual Impairments: A Resource Guide for Teachers (2nd edition),* available from TSBVI Publications.

Note: this procedure is recommended for students who have learned to read fluidly, typically around mid-3rd grade.

Procedure

1. Use narrative stories in a basal **or** a chapter book that the student can read independently (as determined by an informal reading inventory)
2. Prepare one passage in the student's preferred print size using the same enlarging method you usually use, or enlarge print on computer if you are using a Word document (student will read from a print copy, not the computer monitor)
3. Tell the student you will be testing reading (visual) stamina by having him read silently for 20 minutes while you time him, then you will ask him to recap what he read
4. Tell him you cannot talk to him or help him with any words as he reads
5. Tell him you will tap him on the shoulder after 10 minutes, and want him to quickly point to the word he is on, but to continue reading
6. Practice this briefly with the student reading orally (on one sentence)
7. Ask him to tell you when he is comfortable with beginning
8. Begin timing, tap on shoulder after 10 minutes. On your print copy, mark the word he pointed to, and mark the stopping point after the next 10 minutes (20 minutes total reading time)
9. Note reading distance throughout
10. Ask student to recap, or, ask prepared comprehension question for key points
11. Record time for first 10 minutes, and time for 2nd 10 minutes. Compare
12. Take a longish break (15 minute walk to relax eye muscles is best) and repeat with smaller print size, continuing to read where he left off on the previous trial. DO NOT HAVE HIM REREAD PREVIOUS MATERIAL!!!!
13. On another day, do a 3rd silent reading sample using 12 point print with the magnifier the student has been taught to use efficiently
14. Look at your data to decide whether or not differences between reading behaviors are educationally significant
15. Look at the reading rates on the chart on p. 128 in *Learning Media Assessment of Students with Visual Impairments* to compare to students without visual impairments

Things to Consider

- If reading performance on 2 different print sizes are similar, consider the smaller print size as the desirable choice
- If reading regular print is less efficient, consider the need for a low vision evaluation to explore optical devices for near viewing. Do not decide that the use of large type will be the most efficient medium indefinitely
- If reading regular print with an optical device is less efficient, consider the need for additional instruction and practice in the use of the device

Sample of Reading Stamina Assessment Results

Introduction

Brittany's reading stamina was assessed using a modified *Print Media Assessment Profile* (Koenig & Holbrook). Before starting, Brittany was offered an APH reading stand, which she politely refused. When asked if she would like to instead use a three inch 3-ring binder turned sideways on which to place her reading material, she accepted this adaptation. Ambient classroom lighting was used.

Procedure

Brittany was asked to read for a 10 minute (timed) silent reading period broken into two 5 minute intervals. She selected 22 point font size, using literary material that was on her independent reading level. Following the reading exercise, Brittany's word per minute count for the first 5 minutes of reading was compared to the second 5 minutes of reading. Her results were as follows:

1. 1st 5 minutes of reading: 534 words read in 5 minutes, or 107 words per minute
2. 2nd 5 minutes of reading: 546 words read in 5 minutes, or 109 words per minute

Since there is not a statistically significant difference in these two timings, we can say that Brittany does not experience visual fatigue within 10 minutes reading time.
Brittany had stated previously that her perceived reading stamina lasted about 30 minutes before her eyes became too strained to continue. On a second day we wanted to test this perception, so asked Brittany to read for 30 minutes, checking word count every 5 minutes. Because she was interested in reducing print size and using a magnifier, before starting this session, Brittany was introduced to a 6x illuminated hand-held magnifier and a stand (dome) 4x magnifier. Whereas she preferred the 6x hand-held magnifier because of the light, she had difficulties holding a fixed focus with this. Instead, an APH desk lamp was situated on her left, to be used in conjunction with the dome magnifier. Using 16 point font, a 3 inch 3-ring blinder as a slant board, a 4x dome magnifier, and a desk lamp, Brittany's results are as follows:

Time Frame	Total Words Read	Words per Minute
1st 5 minutes	270	54 wpm
2nd 5 minutes	283	57 wpm
3rd 5 minutes	233	47 wpm
4th 5 minutes	250	50 wpm
5th 5 minutes	109 (appeared to nod off at this point)	22 wpm

Results

1. Reading speed is fairly consistent for the first 20-25 minutes
2. Reading speed falls sharply after 25 minutes
3. We don't know if Brittany is experience visual fatigue, or if sleep apnea is an issue
4. She read faster with the larger print size
5. She is not adept at using a magnifier fluidly

Summary

With a diagnosis of retinitis pigmentosa, we can expect Brittany to have difficulties with poor lighting and large letters, due to the reduction in visual fields. Whereas 22 point font might be

easier for Brittany at this point, it is unrealistic to assume that all materials will be enlarged for her. Given her preference for an illuminated hand held magnifier (due to its portability and convenience), I would suggest consistent training with progressively smaller print (from 16 down to 12 point font) using this type of device and reading materials that are conducive to timed fluency exercises. A slant board helps to elevate the materials so that she doesn't strain her neck and also situate a lamp so that her head is not blocking the light.

In order to keep up with the volume of reading needed in post-graduate work, Brittany is not currently reading at a speed that will allow her to keep up. She would benefit from training to use audiobooks in conjunction with print and braille reading activities (also referred to as "supported listening"). This would boost her speed and stamina as well. For more information on supported listening, visit the Learning Ally website, www.learningally.org.

Guidelines for Increasing Reading Speed and Stamina for Students with Low Vision

Adapted from: Corn, A.L., and Erin, J.N., Editors. *Foundations of Low Vision, Clinical and Functional Perspectives, Second Edition*. New York, NY: AFB Press, 2010.

Rationale

Students with low vision generally read more slowly and have less stamina for sustaining reading. Since proficient readers become proficient by reading extensively, the TVI can use these strategies for developing reading fluency, speed, and stamina.

Guidelines

- Use easy reading materials on topics that interest the student
- Determine how long a student can continue to read without a break. This level of stamina will be determined by observing the student during periods of sustained reading, by talking with the student, and/or by talking with teachers and parents.
- Set a reasonable goal for continually increasing rate and stamina (a point at which the student can read continuously before visual fatigue)
- Before setting the next goal (e.g., longer reading time), make sure the student has demonstrated a consistent and comfortable degree of mastery at a given level
- Involve the student in setting goals and keep a chart together to monitor progress
- Teach the student how to assess whether the visual environment is conducive to reading, and make adjustments as needed to positioning of materials/body and lighting
- Encourage the student to monitor the use of an optical device while reading and making adjustments, if necessary, in the focal distance, working distance, placement of materials, etc.
- Teach the student to recognize signs of visual fatigue (headache, frustration, frequent errors) and offer strategies for dealing with it (e.g., taking short breaks, changing from reading a text to audio assisted reading)
- Teach the student how to read for specific purposes (e.g., scanning quickly to find needed information, skimming to get the gist of a passage)
- Help the student locate pleasure reading materials of high motivational value

Tips for Increasing Your Student's Reading Fluency

Several strategies can be used for building fluency. Two are featured on this tip sheet: **Paired Reading** and **Listening While Reading**. If your student has a prescribed optical device, (s)he should be using it during these reading sessions. You can use an interesting book or magazine on the student's reading level, or select short, interesting pieces (e.g., website page, report on new technology, current events article) that may capture young readers' attention such as humorous or suspenseful openings, descriptive passages, or bizarre facts.

Definitions:

Paired reading is a simple but effective technique for helping struggling readers to increase their reading fluency and accuracy in text. The adult and student read together from the text. When the student chooses, he or she can read alone, while the adult follows along silently in the text. Whenever the student misreads a word or otherwise makes a reading error, the adult supplies the correct word and resumes reading aloud along with the student.

Listening While Reading is a simple but effective technique for helping struggling readers to increase their reading fluency and accuracy in text.

Steps:

Paired Reading Steps:

1. Read from the page with your student
2. When your student taps your hand, let him read alone as you follow along silently
3. If the student reads a word wrong, skips a word, or doesn't know a word (wait 5-seconds):
   - Point to the word
   - Say the word
   - Have the student repeat the word
   - Join the student in reading aloud again

Listening While Reading Steps:

1. Read aloud from the page for about 2 minutes while your student follows along silently.
2. Next, have your student read aloud alone from the same passage that you just read while you follow along silently.
3. If the student reads a word wrong, skips a word, or doesn't know a word:
   - Point to the word
   - Say the word
   - Have the student repeat the word
   - Tell the student to continue reading

Monitor fluency every 4 weeks during your training.

To **Monitor Fluency,** the student:

1. Independently reads unpracticed text to the teacher and graphs the words per minute (wpm) score on a Reading Record page
2. Practices rereading the same text several times
3. Independently reads the text again to the teacher
4. Graphs score in a different color

Using Repeated Reading Strategy to Increase Reading Fluency

This strategy has been found to work well with students with low vision. You will use print materials formatted in the student's comfortable font size, and move toward using print materials of a smaller font sizes used in conjunction with a prescribed optical device. For example, if your student prefers 22 point font, practice repeated readings (without an optical device) until (s)he reaches the pre-determined criterion goal. Then, introduce a smaller font size, such as 18 point font, and repeat the steps below (using the prescribed optical device) until a criterion goal is reached. Continue the process with smaller fonts, attempting to get to 12 point font.

Repeated Readings Steps

1. Determine the student's average oral reading rate by conducting an informal reading inventory (such as the Jerry Johns Basic Reading Inventory, available from TSBVI Publications, or on Amazon.com).
2. Select short, interesting stories at the student's instruction level that can be read in 3-5 minutes.
3. Set a criterion goal that the student can easily obtain after 3 or 4 readings
4. After the first reading, tell the student what his/her rate is
5. Have student continue reading the passage and provide feedback on rate until the criterion rate is attained
6. Begin each session with a new passage
7. After student is comfortable reading at the criterion rate, increase it by setting another criterion goal that the student can easily obtain after 3 or 4 readings

Audio Assisted Reading

By Ike Presley
National Program Associate, Literacy
American Foundation for the Blind
National Literacy Center

The ability to skillfully and efficiently gain access to all curricular materials is essential for all students with visual impairment. While learning to read and write is a primary goal, it is also the responsibility of educators to teach skills necessary to enable students to have choices of all types of learning media as curricular demands and volume increase. This includes the skills of learning to listen in order to learn.

Sometimes students will choose to simply listen to literature that has been recorded, such as during recreational listening, but more often they will be using their audible curricular materials in tandem with braille or print textbooks. *Audio Assisted Reading* was a term coined by Carol Evans in 1997, when designing a method for students with visual impairments and learning disabilities to use recorded books along with the corresponding book in regular print, large print, magnified print or braille. The method "allows the reader to use all available avenues of sensory input simultaneously to acquire and process information." (Evans, 1997)

While designed for use with students with additional learning challenges, the method has distinct advantages for many students who are learning to listen to recorded curricular materials on any of the great variety of listening tools (see list on page #). When listening to textbooks, references to visual materials (illustrations, charts, graphs, maps, etc.) are made by the narrator; if the listener/reader is following along in the print or braille book, he or she is able to gain valuable information from examination of the illustrations. Evans sites the following additional advantages:

1. Simultaneous use (of listening and reading) helps those with attention problems screen out competing stimuli. Some people who use recordings alone are distracted by visual stimuli in the environment. Some who use print or braille alone are distracted by extraneous sound. Use of headphones can boost attention.
2. If print or braille decoding is slow and labored, it consumes all the energy needed for comprehension. By the time one gets to the end of the sentence, one may have forgotten what the beginning was about. Paragraph comprehension may require repeated re-reading. The pace and inflection of recorded narration provides efficient decoding and comprehension.
3. Young children who are having difficulty learning the relationship between sounds and symbols, but who nevertheless enjoy listening to stories, can be encouraged to discover these relationships by using recorded storybooks (available in packages along with the corresponding print books at any public library). *Recording for the Blind and Dyslexic* is producing many early reading series materials for this purpose.
4. Intermediate grade children who have reading deficits and are served by resource for attempted remediation may compensate and be included in regular classroom environments for literature reading by use of recorded novels available from the State

Library for the Blind and Physically Handicapped. The State Libraries are divisions of the Library of Congress, and virtually all of classical and modern literature, including the latest best-sellers, is available free to qualifying individuals from this resource.

5. Compensatory use of recorded books has sometimes resulted in remedial effects when all other efforts at remediation have failed.

Instructional Strategies for Audio Assisted Reading

Learning to utilize audible learning materials is a skill that for many students must be deliberately taught. The curricular goals for these students are: comprehension of information, determining what information is important, and learning to listen for that information. Students can be trained to listen for *who*, *what*, *when*, *where*, *how* and *why* when listening by providing them with pre-reading/listening questions. The following teaching sequence was designed by Ike Presley, National Program Associate, Literacy, American Foundation for the Blind:

Stage One

1. Using high interest materials locate or record three to five minute selections.
2. Prepare simple *who*, *what*, *when* and *where* questions (at least one per paragraph) in sequential order (the order the information occurs within the passage)
3. Provide the questions in the student's preferred learning medium
4. Have the student read all questions before listening, or read to the student and discuss them
5. Have the student re-read first question
6. Tell the student they can stop at any time and review the question
7. Tell the student to start listening and stop when they hear the answer to question (the teacher listens along with student)
8. Have the student provide the answer when they hear it (verbally, in print or braille, etc.)
9. (If the student does not provide answer, ask the student leading questions in an effort to guide them to answer)
10. Repeat the preceding steps with different selections
11. Have the student practice using headphones without teacher support
12. Use *Stage One* of this process until the student achieves over 80% accuracy

Stage Two

1. Increase listening time by using one question for every 2 paragraphs
2. Begin providing questions out of sequence
3. Return to one question per paragraph but change the order of questions, for example:
    a. Paragraph 2, 1, 3, 5, 4, 6, etc
4. Ask the student “What do the questions ask about?”
5. Guide student to understanding that the questions are asking: *who*, *what*, *when*, and *where*
6. Use *Stage Two* of this process until the student achieves over 80% accuracy

Stage Three

1. Continue using high interest materials
2. Record longer passages and stories
3. Use short articles from magazines
4. Return to sequential questions

5. Provide one question for about every two paragraphs
6. Start introducing some *how* and *why* questions
7. Introduce short chapters in books

Stage Four

1. Don't provide questions before reading
2. Ask student to stop after several paragraphs
3. Ask two or three simple sequential questions about the content just heard
4. Once student demonstrates proficiency, start asking non-sequential questions

Stage Five

1. Continue using high interest materials
2. Ask the student to read a selection at home
3. Discuss the content with the student without quizzing

Stage Six

1. Begin using materials of less than high interest
2. (These can be found by consulting with a reading specialist. Ask for materials that have been recorded and have written questions)
3. Use the same strategies as with high interest materials

Introducing Textbooks

1. In order to ensure a successful first experience, begin with a chapter that has been previously covered in class
2. Use the same strategies as with high interest materials
3. Provide an outline of the chapter with headings and sub-headings
4. Leave adequate space for the student's answers
5. Make at least one or two questions for each sub-section of chapter
6. Have the student fill in the outline with answers to questions & other important information

Websites and Other Resources for Literacy

Fluency & Stamina

Reading Rockets

http://www.readingrockets.org/teaching/reading101/fluency

Great Leaps ("Building Fluency, Phonics, & Motivation")

http://www.greatleaps.com/index.php?main_page=products_all&zenid=mmqod260gb89b2ocutorba2t97

Read Naturally Masters Edition (ME)

http://www.readnaturally.com/products/meInfo.htm

Dibels (free fluency materials)

https://dibels.uoregon.edu/index.php?logout=y&skip=1

Instructional Video

"Assessing the Reading Speed and Stamina of Students with Low Vision"
http://www.tsbvi.edu/distance/low-vision-assessment.html
http://www.pathstoliteracy.org/resources/assessing-reading-speed-and-stamina-students-low-vision

Informal Reading Inventory

Johns, J. L., *Basic Reading Inventory*, 10th edition (2008). Kendall Hunt Publications, or available from TSBVI Publications

Magnifier Use/Monocular Use

Instructional videos on Teaching Students to use Optical Devices,
http://www.tsbvi.edu/distance/optical-device-use.html
EVALS Kit, pp. 653-663. TSBVI Publications
D'Andrea, M. F., & Farrenkopf, C., (2000). *Looking to learn: Promoting literacy for students with low vision.* New York: AFB Press.
InFocus with Low Vision Kit, available from Education Service Center, Region 4.
http://www.region4store.com/Catalog.aspx?catid=347927&itmid=669829

Listening

Listening While Reading

http://www.learningthroughlistening.org/Listening-A-Powerful-Skill/Teaching-Listening/Listening-While-Reading/97/

Activities to Reinforce Listening (under "Strategies and Activities-Activities")

http://www.learningthroughlistening.org/Classroom-Teaching-Tools/Strategies-and-Activities/Activities/43/

Reading Strategies

Reading Strategies for Students with Visual Impairments: A Classroom Teacher's Guide (2008). SET-BC, Publisher.
https://www.setbc.org/Download/LearningCentre/Vision/Reading_Strategies_for_Visual_Impairments.pdf
Print Media Assessment Profile
Learning Media Assessment of Students with Visual Impairments (1995). TSBVI Publications

Struggling Readers

http://www.pathstoliteracy.org/getting-started-struggling-reader-visual-impairments